

Hard Probes in Heavy Ion Collisions at the LHC: PDFs, Shadowing and pA Collisions

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Abstract

This manuscript is the outcome of the subgroup “PDFs, shadowing and pA collisions” from the CERN workshop “Hard Probes in Heavy Ion Collisions at the LHC”[1]. In addition to the experimental parameters for pA collisions at the LHC, the issues discussed are factorization in nuclear collisions, nuclear parton distributions (nPDFs), hard probes as the benchmark tests of factorization in pA collisions at the LHC, and semi-hard probes as observables with potentially large nuclear effects. Also, novel QCD phenomena in pA collisions at the LHC are considered. The importance of the pA program at the LHC is emphasized.

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[1] A. Accardi et al. (2003), hep-ph/0308248.